

CLAIM OR CLAIMS:

1           1. A drive rod string for a progressive cavity pump comprising:

2                 a plurality of drive rods, each drive rod having a pair of opposed ends, wherein each  
3        said end terminates in a frustoconical pin having tapered threading and having a radially extending  
4       cylindrical shoulder;

5                 a plurality of connectors, each connector attached to one said end of a pair of said  
6        drive rods, wherein each said connector has a pair of opposed frustoconical threaded recesses which  
7       extend from a pair of shoulders which mate with said cylindrical shoulders of said frustoconical pins;  
8       and

9                 an internal secondary stop within said connector acting as a positive stop in each said  
10      connector for said frustoconical pin.

1           2. A drive rod string as set forth in Claim 1 wherein said internal secondary stop is  
2       spaced from each frustoconical pin until said pin is elongated from stress.

1           3. A drive rod string as set forth in Claim 1 wherein each said frustoconical pin  
2       cylindrical shoulder has a surface which is roughened and wherein each said connector pair of  
3       shoulders have surfaces which are roughened and wherein said mating of said roughened surfaces  
4       resists rotational movement.

1           4. A drive rod string as set forth in Claim 1 wherein said drive rod string connectors can  
2       accommodate up to 1,750 foot pounds of torque to said drive rod string.

1           5. A connector for a pair of drive rods, wherein each drive rod terminates in a  
2 frustoconical pin having tapered threading and having a radially extending cylindrical shoulder with  
3 substantially no undercut between said tapered threading and said shoulder and wherein said  
4 cylindrical shoulder has a roughened surface, which connector comprises:

5                 a pair of opposed frustoconical threaded recesses, each said frustoconical recess  
6 extending from a shoulder which will mate with said cylindrical shoulder of said frustoconical pin;  
7 and

8                 an internal secondary stop within said connector between said frustoconical threaded  
9 recesses which acts as a positive stop.

1           6. A drive rod string as set forth in Claim 1 wherein said internal secondary stop is  
2 normally spaced from said frustoconical pin when said pin is threaded into said recess.

1           7. A method of operating a progressive cavity device, which method comprises:  
2                 positioning a progressive cavity device downhole in a well by attaching a drive rod  
3 string to said device, wherein said drive rod string includes a plurality of drive rods, each drive rod  
4 having a pair of opposed ends, each said end terminating in a frustoconical pin having tapered  
5 threading and having a radially extending cylindrical shoulder and includes a plurality of connectors,  
6 each connector having a pair of opposed frustoconical threaded recesses, each said frustoconical  
7 recess extending from a shoulder which will mate with said cylindrical shoulder of said frustoconical  
8 pin; and  
9                 rotating said drive rod string to power said progressive cavity device.